7.0 MISCELLANEOUS SITE 22 TRACT

7.1 Affected Environment

7.1.1 Land Use

The Miscellaneous Site 22 Tract consists of less than 0.5 acre (0.2 hectare) located in the Los Alamos townsite at the southern edge of the mesa above Los Alamos Canyon (see Figure 7.1.1-1) (DOE 1998b).

The northern edge of the tract is located behind an adjacent commercial storage business and a fast-food restaurant. The southern portion of the tract generally conforms to the topography of the mesa's edge.

Historically, when LANL operations were centralized around Ashley Pond located to the north across Trinity Drive, the Miscellaneous Site 22 Tract was the location of the machining shops. At present a LANL air monitoring station is located at the tract. Although it remains part of LANL, the site is not otherwise physically or operationally related to LANL (DOE 1998b). It is informally used by the public as a vehicle parking area. Figure 7.1.1-2 shows the location of the air monitoring station.

A portion of the Los Alamos Bench Trail crosses the tract Los Alamos Canyon to the south of the site and continues to the north (LANL 1998c) (see Figure 3.2.1-2 in Chapter 3). No other recreational related opportunities exist at the site.

7.1.1.1 Environmental Restoration

The Miscellaneous Site 22 Tract contains no potential release sites (PRSs) and one structure within its boundaries. There is a small amount of construction debris, however, that may have to be addressed prior to transfer of ownership. No sampling has yet been conducted to determine whether the debris is simply solid waste or whether it contains asbestos or other regulated materials. For this reason, the entire tract is considered to have potential contamination issues (see Figure 7.1.1.1-1).

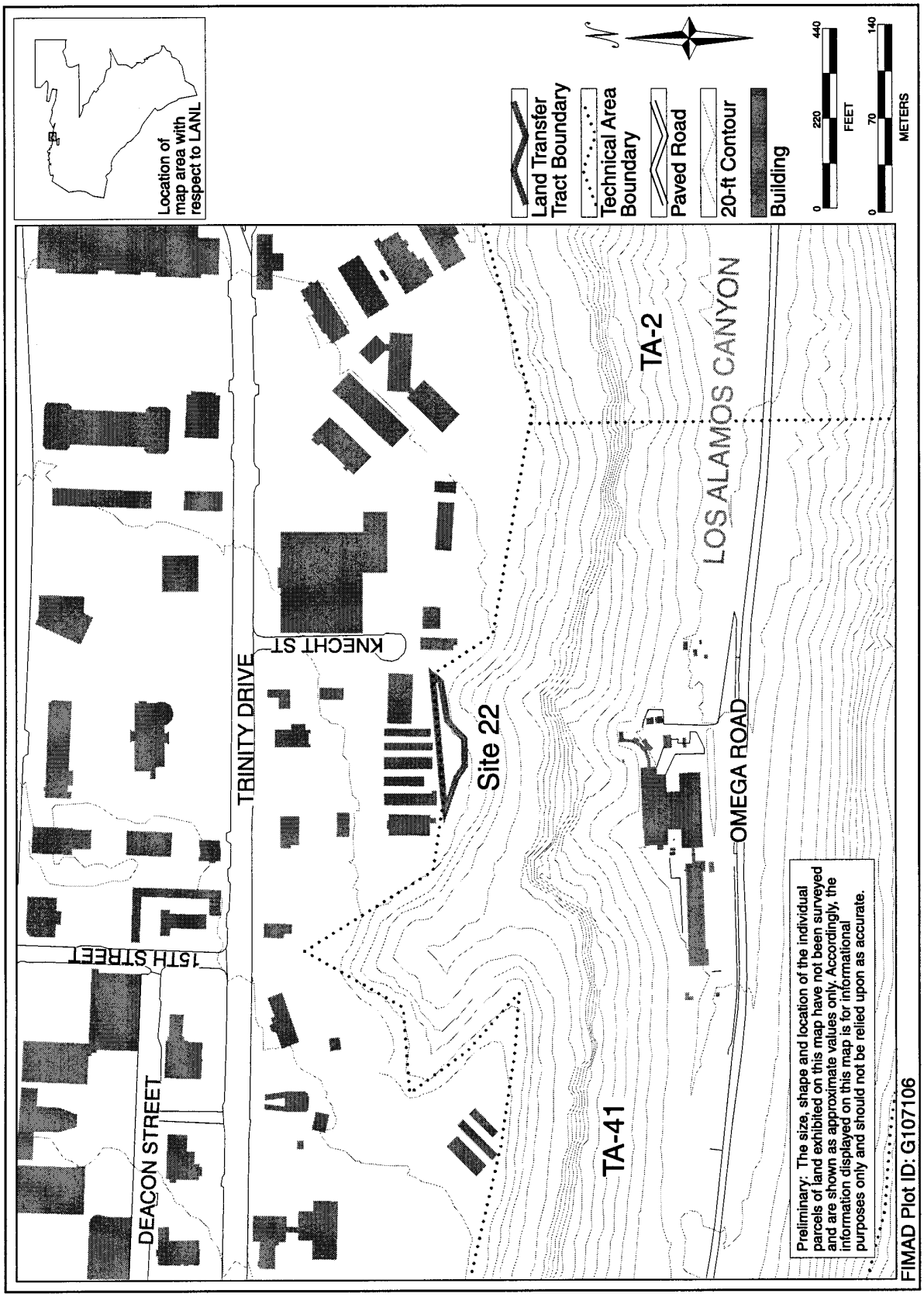

Figure 7.1.1-1. Miscellaneous Site 22 Tract Layout.

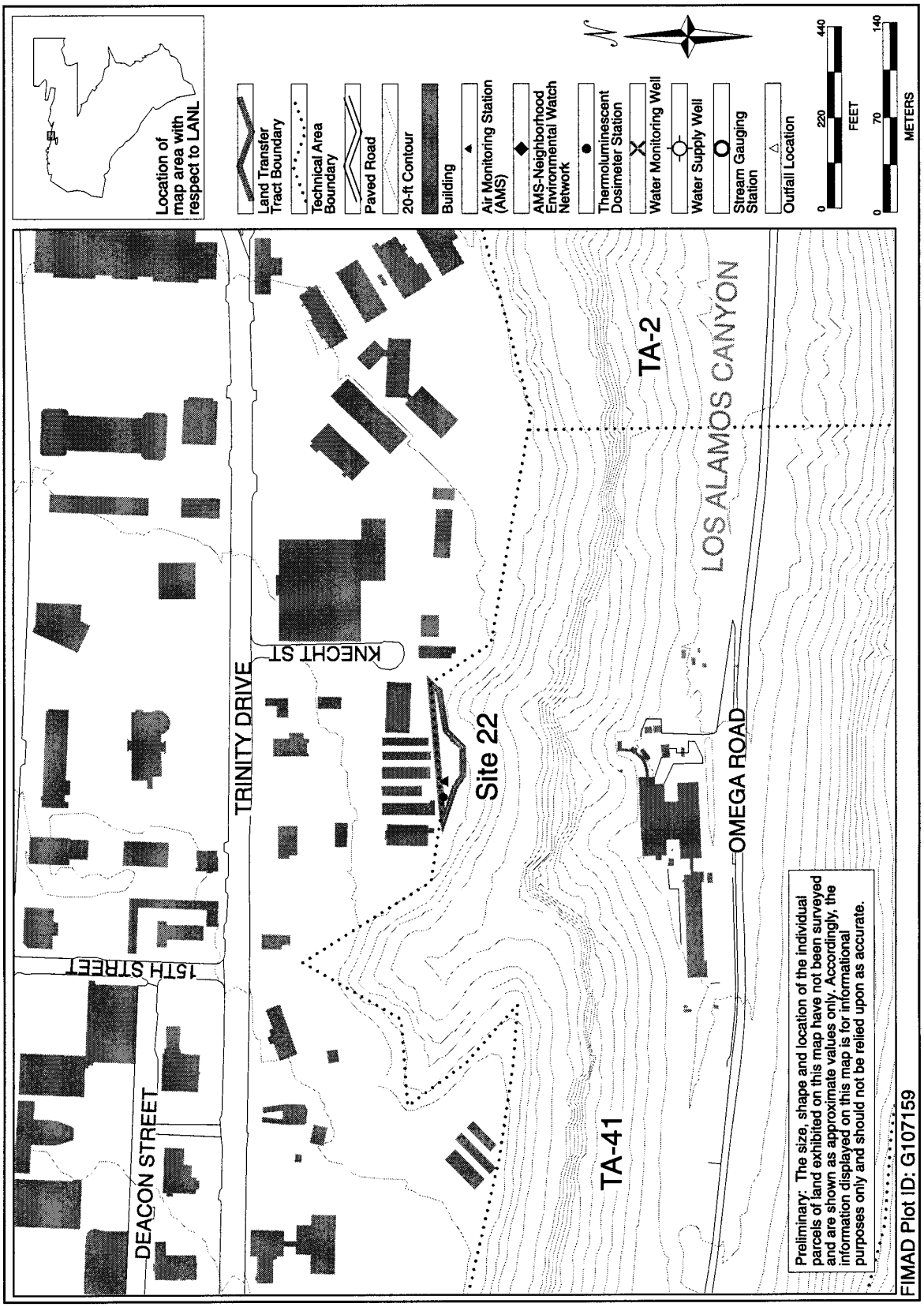

Figure 7.1.1-2. Miscellaneous Site 22 Tract Monitoring Stations and Outfall Locations.

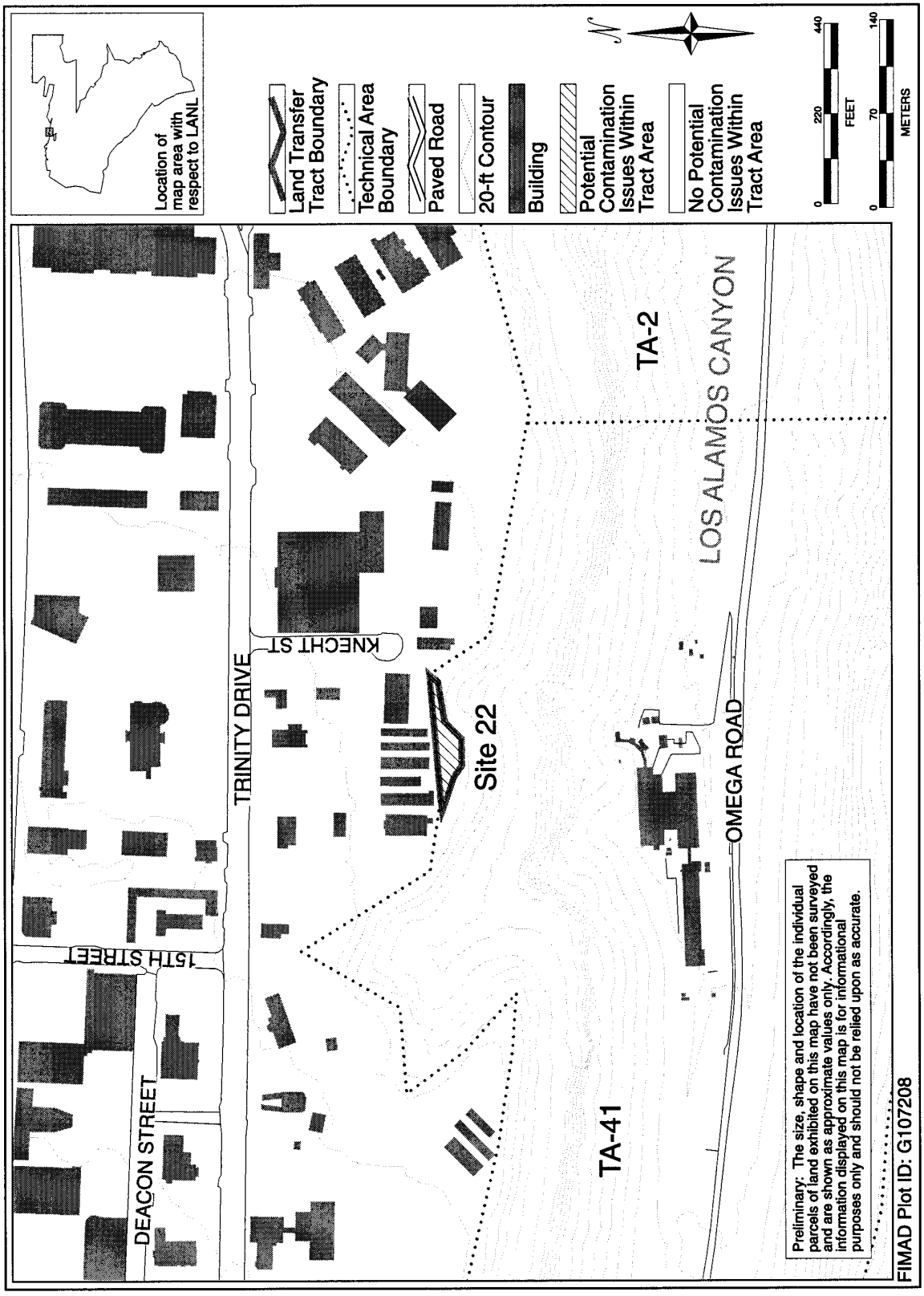

Figure 7.1.1.1-1. Miscellaneous Site 22 Tract Potential Contamination Issue Areas.

7.1.2 Transportation

This tract is adjacent to Trinity Drive (see Figure 7.1.1-1), which is a four-lane major arterial with an approximate capacity of 7,200 passenger cars per hour (pcph). Data provided by the County of Los Alamos show that Trinity Drive carried approximately 2,630 vehicles in the vicinity of the Miscellaneous Site 22 Tract during the peak hour in January 1998. The average annual daily traffic for Diamond Drive near the site is approximately 19,700 vehicles per day. This results in a current level of service (LOS) C for Trinity Drive, which is defined as good operating conditions with stable flow, but speeds and maneuverability are more closely controlled by the higher traffic volumes. Increasing Trinity Drive traffic by 1.5 percent a year to account for expected growth in the area over the next 20 years maintains the LOS C for Trinity Drive.

7.1.3 Infrastructure

Figure 7.1.3-1 shows the utilities and infrastructure at the Miscellaneous Site 22 Tract. The DOE currently uses this tract as a buffer zone. The tract has an air monitoring station with a small access stairway. The air monitoring station uses a negligible amount of electricity to operate. All utilities are available to the site. This tract is not metered separately for any utilities, and no figures for current utility usage are available.

7.1.4 Noise

The Miscellaneous Site 22 Tract, less than 0.25 acre (0.1 hectare), is currently surrounded by commercial properties. The predominant source of noise, surprisingly, is traffic on East Jemez Road across Los Alamos Canyon. An air sampling station is located on the tract and also contributes to audible noise. Noise levels are estimated to range from 50 to 60 decibels (dB).

7.1.5 Visual Resources

The Miscellaneous Site 22 Tract generally is visually similar to adjacent land areas. There are some manmade modifications within the tract. The primary views to the site are from South Mesa located across Los Alamos Canyon to the south of the tract. The views from the tract to the south, west, and east are primarily of tree and rock covered mesa and side slopes. The view to the north is mainly of commercial storage units. After scenic quality, distance zone, and sensitivity level components were combined using the Inventory Class Matrix, it was determined that the site falls into Scenic Class IV and that the current visual resources are of low public value.

7.1.6 Socioeconomics

The most meaningful economic region of influence (ROI) for all of the tracts is the regional setting described in Chapter 3 of this CT EIS. Labor and housing markets extend well beyond any of the tract boundaries affected by the proposed land transfer.

This tract is comparatively small and currently has no development except for an air monitoring station. There is no employment associated with this tract of land.

7.1.7 Ecological Resources

Vegetation in this tract consists primarily of native grasses, herbs, and shrubs. Fauna presence in this small tract would be characteristic of the region but limited to those species able to coexist with extensive human development (for example, rats, mice, songbirds). The site is not in a floodplain nor does it support wetlands. Habitat for the American peregrine falcon, bald eagle, and Mexican spotted owl overlaps this land tract. The habitat is poor due to the small tract area, intensive adjacent development, and human population in the general area. However, the tract contains 0.25 acres (0.1 hectares) of identified area of environmental interest

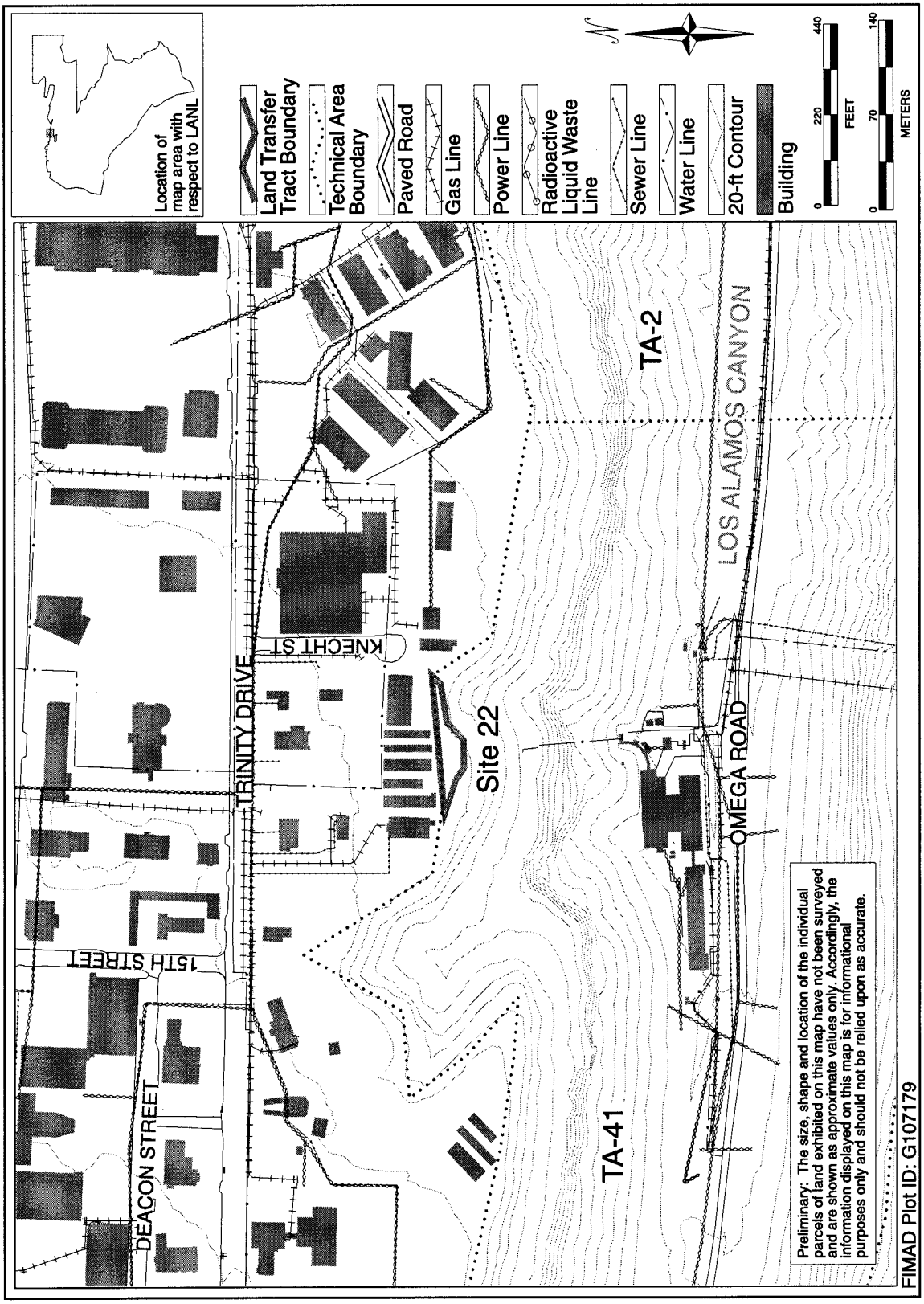

Figure 7.1.3-1. Miscellaneous Site 22 Tract Utilities and Infrastructure.

(AEI) core habitat for the Los Alamos Canyon Mexican spotted owl (PC 1999d). Noise in the vicinity of this tract is from motorized vehicles and business operation in the area. Artificial light sources associated with commercial development and vehicles also are present (LANL 1998b).

7.1.8 Cultural Resources

The Miscellaneous Site 22 Tract is located on a mesa edge just north of Los Alamos Canyon. Prior to DOE use, this tract was part of the Ramon Vigil Spanish land grant. The ROI for this tract includes the land tract itself, plus nearby cultural resources located off the tract. For this tract, these nearby resources are located on privately held land.

One hundred percent of the Miscellaneous Site 22 Tract has been inventoried for historic and prehistoric cultural resources and none were found. There are no historic structures located on the tract. There are no known traditional cultural properties (TCPs) located in the Miscellaneous Site 22 Tract. Consultations to identify TCP resources have not been conducted. Due to the tract's location and size, it has a low potential for unidentified resources.

7.1.9 Geology and Soils

The Miscellaneous Site 22 Tract borders the edge of Los Alamos Canyon. Outcrops along the canyon edge belong to the upper member of the Bandelier Tuff (Tshirege), typical of the Pajarito Plateau. No major surface faulting is evident at the Miscellaneous Site 22 Tract, but fracturing along the canyon edge is common in the area.

7.1.10 Water Resources

The Miscellaneous Site 22 Tract is located on the slope above Los Alamos Canyon, which is an ephemeral drainage in this vicinity. There are no known springs or wetlands within the tract. There are no National Pollutant Discharge Elimination System (NPDES)-permitted outfalls within the tract. There are no regional aquifer groundwater test or supply wells within the tract or within a distance of 0.5 mile (0.8 kilometer).

There are no stream gages or established surface water or groundwater monitoring stations located within the tract. The closest environmental monitoring locations maintained by the LANL Environmental Surveillance and Compliance Program are for surface water and shallow groundwater in Los Alamos Canyon and do not pertain to water quality or quantity associated with this tract.

The Miscellaneous Site 22 Tract does not lie within the 100-year or 500-year floodplains as modeled by LANL for Los Alamos Canyon.

7.1.11 Air Resources

Air quality is good at the Miscellaneous Site 22 Tract, affected mostly by traffic on nearby Trinity Drive. Air quality is also affected, to a lesser extent, by emissions from LANL as a whole.

The Miscellaneous Site 22 Tract is part of New Mexico Region 3, an attainment area that meets National Ambient Air Quality Standards (NAAQS) for criteria pollutants. Except for small amounts of carbon monoxide and ozone resulting from hydrocarbons emitted from motor vehicles, there are no sources of criteria pollutants within the tract itself.

Analyses performed for the LANL SWEIS estimate that concentrations of chemical air pollutants from LANL do not exceed health-based standards for any point beyond the LANL boundary, including at the Los Alamos Medical Center (DOE 1999c, Chapter 5). The closest LANL facilities are at Technical Area (TA) 41, located nearly directly below Miscellaneous Site 22 Tract, on the floor of Los Alamos Canyon.

However, there are no emissions of chemical air pollutants from TA 41.

Finally, analyses for doses from LANL radioactive air pollutants indicate that air concentrations at the Miscellaneous Site 22 Tract would deliver a dose of approximately 1.6 millirem per year if people resided there year-round, or less than one-fifth of the EPA standard (DOE 1999c, Chapter 5). There are no emissions of radioactive air pollutants from activities at the tract itself.

7.1.11.1 Global Climate Change

Because there are no heated facilities and because motor vehicles cannot operate on this tract, there are no emissions of carbon dioxide or other greenhouse gases from the Miscellaneous Site 22 Tract.

7.1.12 Human Health

7.1.12.1 The Radiological Environment for the Miscellaneous Site 22 Tract

The Miscellaneous Site 22 Tract sits on the edge of the LANL townsite mesa just above TA 41 and is currently within the LANL perimeter. No one resides on the land, and there are few visitors. It would be expected that radiation doses would be much less than that to the LANL offsite maximally exposed individual (MEI) due to the much greater distance from the LANL primary source of radioactive air emissions (the Los Alamos Neutron Science Center [LANSCE]). Similarly, background radiation doses would be the same as for the Los Alamos townsite. No PRSs or other known sources of radioactive contamination exist for this tract.

7.1.12.2 The Nonradiological Environment for the Miscellaneous Site 22 Tract

Exposures to nonradiological contaminants via airborne pathways in the LANL vicinity have already been shown to be below health-based standards for the affected environment (DOE 1999c). No PRSs or other known sources of nonradiological contamination exist for this tract except possibly some building debris.

7.1.12.3 Facility Accidents

Chemical Accidents

The LANL SWEIS posits six chemical accidents, as discussed in Chapter 4, Section 4.1.12 of this CT EIS. For all postulated accidents, chemical concentrations in the air plume released by the potential accidents would be below both Emergency Response Planning Guideline (ERPG)-3 (life-threatening) and ERPG-2 (serious health effects) by the time air plume reached the Miscellaneous Site 22 Tract, even under adverse weather dispersion conditions. Accordingly, chemical accidents have no estimated public consequences at the tract.

Radiological Accidents

There are 13 credible radiological accident scenarios postulated in the LANL SWEIS, as discussed in Chapter 4, Section 4.1.12 of this CT EIS. Using data from the LANL SWEIS, doses to the MEI at the Miscellaneous Site 22 Tract have been estimated for each of these, as shown in Table 7.1.12.3-1.

Because there are no workers or residents at the tract, estimated tract collective dose and estimated excess latent cancer fatality (LCF) are both zero.

Natural Event Accidents

There are five natural event accident scenarios postulated in the LANL SWEIS: four earthquakes and one wildfire. The most severe postulated earthquake (accident SITE-03B) has an estimated frequency of 3×10^{-5} per year, or once every 330,000 years. The earthquake scenario would release chemicals from a number of facilities,

Table 7.1.12.3-1. MEI Doses for the Miscellaneous Site 22 Tract Resulting from Hypothetical Accidents at LANL Facilities

ACCIDENT SCENARIO	ACCIDENT LOCATION	FACILITY	FREQUENCY PER YEAR	MEI DOSE (mrem)	ACCIDENT DESCRIPTION
RAD-01	54-38	RANT	1.6×10^{-2}	48	Fire in the outdoor container storage area
RAD-02	03-29	CMR	1.5×10^{-6}	32,000	Natural gas pipeline failure
RAD-03	18-116	Kiva #3	4.3×10^{-6}	35	Power excursion at the Godiva-IV fast-burst reactor
RAD-05	21-209	TSTA	9.1×10^{-6}	2	Aircraft crash
RAD-07	50-69	WCRR	3.0×10^{-4}	320	Fire in the outdoor container storage area
RAD-08	54-230	TWISP	4.3×10^{-6}	60	Aircraft crash
RAD-09A	54-226	TWISP	4.9×10^{-1}	1	Puncture or drop of average-content drum of transuranic waste
RAD-09B	54-226	TWISP	4.9×10^{-3}	38	Puncture or drop of high-content drum of transuranic waste
RAD-12	16-411	--	1.5×10^{-6}	12,000	Seismic-initiated explosion of a plutonium-containing assembly
RAD-13	18-116	Kiva #3	1.6×10^{-5}	53	Plutonium release from irradiation experiment at the Skua reactor
RAD-15A	03-29	CMR	3.6×10^{-5}	110	Fire in single laboratory
RAD-15B	03-29	CMR	3.2×10^{-5}	2,100	Fire in entire building wing
RAD-16	03-29	CMR	3.5×10^{-6}	5	Aircraft crash

Notes: mrem = millirem; RANT = Radioactive Assay and Nondestructive Test; CMR = Chemistry and Metallurgy Research; TSTA = Tritium Systems Test Assembly; WCRR = Waste Characterization, Reduction, and Repackaging; TWISP = Transuranic Waste Inspectable Storage Project

including formaldehyde from the Health Research Laboratory (Building 43-01) and chlorine from the chlorinating station within the Los Alamos townsite (Building 00-1109). As discussed above for chemical accidents, earthquakes would have no estimated chemical consequences at the Miscellaneous Site 22 Tract. The most severe postulated earthquake, however, would be expected to release significant quantities of radioactive materials from several buildings, especially from the Chemistry and Metallurgy Research (CMR) Building (Building 03-29). Radiological consequences are estimated to result in a maximum dose of nearly 100 Roentgen equivalent man (rem) at the Miscellaneous Site 22 Tract.

The site wildfire scenario would burn about 8,000 acres (3,240 hectares) within LANL boundaries, or about 30 percent of LANL, including most of Mortandad Canyon and parts of Los Alamos and DP Canyons east of TA 21. Chemical releases would be less severe than in the earthquake scenarios. The largest quantities of radioactive materials would be released from the transuranic (TRU) waste storage domes at Area G. The

maximum dose at the Miscellaneous Site 22 Tract is estimated to be less than 0.1 rem. Such a wildfire has an estimated frequency of 0.1 per year, or once every 10 years.

Because there are no workers or residents at the tract, estimated tract collective dose and estimated excess LCF are both zero for all five natural event accident scenarios.

7.1.13 Environmental Justice

Any disproportionately high and adverse human health or environmental effects on minority or low-income populations that could result from the actions undertaken by the DOE are assessed for the 50-mile (80-kilometer) area surrounding LANL, as described in Chapter 3, Section 3.2.1.14.

7.2 No Action Alternative

7.2.1 Land Use

There would be no anticipated change in land use at the Miscellaneous Site 22 Tract, as currently described under the No Action Alternative.

7.2.1.1 Environmental Restoration

Characterization and cleanup of this tract would take place as described in DOE's *Accelerating Cleanup: Paths to Closure* (DOE 1998c) or similar plans. The plan focuses on completing work at as many contaminated sites as possible by the end of fiscal year 2006, although some LANL sites may take longer. The plan includes input from all major field sites, including LANL.

The DOE has developed preliminary information based on current knowledge of contamination at the Miscellaneous Site 22 Tract, as briefly discussed in the Affected Environment portion of this chapter, Section 7.1.1.1. Information includes estimates of sampling and cleanup costs, decommissioning costs, types and volumes of wastes that would be generated, and length of time required to effect the cleanup. An overview of this preliminary information is set forth in Appendix B of this CT EIS. All information has been extracted from the Environmental Restoration Report (DOE 1999b).

This information indicates the only cleanup likely for the tract would be the characterization and removal of the construction debris, an action estimated to require 9 months. Waste volumes are expected to total 10 cubic yards (8 cubic meters). The cost estimate for remedial action at this parcel is about $91,000. This estimate is based on information currently available regarding the site contamination, and is subject to change if significantly different information is discovered during the course of investigation or remediation. It should be noted that all PRSs, including those at which no remediation is ultimately required, must be characterized, and the results must be reported to the administrative authority. As a consequence, there are almost always costs and wastes associated with PRSs that do not require actual "cleanup." Although a cleanup approach has been identified, it is possible that the administrative authority could require additional actions, resulting in greater waste volumes, a longer cleanup duration, and higher costs. It also should be noted that environmental restoration actions and costs represent only a portion of the actions and total costs that may be required for conveyance and transfer of this parcel. These additional costs may be significant.

7.2.2 Transportation

The No Action Alternative would result in no significant changes in traffic volume on Trinity Drive near the Miscellaneous Site 22 Tract. It is expected that the future operational performance of Trinity Drive would remain similar to that of the existing performance.

7.2.3 Infrastructure

The No Action Alternative would result in no changes in the infrastructure or utilities of the Miscellaneous Site 22 Tract. The air monitoring station would remain in operation. No appreciable change in utility usage or infrastructure development is expected.

7.2.4 Noise

In the No Action Alternative, the Miscellaneous Site 22 Tract would remain in its current use, and traffic on Trinity Drive determines ambient noise levels. Noise levels would be expected to remain about the same as they are currently in the range of 50 to 60 A-weighted decibels (dBA).

7.2.5 Visual Resources

Under the No Action Alternative, it is expected that the visual character of the site would remain as it is today.

7.2.6 Socioeconomics

Under the No Action Alternative, there would be no anticipated changes in land use or change in employment on the tract.

7.2.7 Ecological Resources

Under the No Action Alternative, there would be no changes in land use at the Miscellaneous Site 22 Tract, as described in Section 7.1.1. Therefore, no impact to ecological resources is projected under the CT EIS No Action Alternative.

7.2.8 Cultural Resources

Under the No Action Alternative, the Miscellaneous Site 22 Tract would remain under the responsibility of the DOE, and the treatment of any unidentified cultural resources present would continue to be subject to Federal laws, regulations, guidelines, executive orders, and Pueblo Accords.

7.2.9 Geology and Soils

Consequences are limited to existing uses with regard to geology and soils. The tract is already developed; no additional utilities, roadwork, or buildings would be required. No soil disturbance or change in availability of resources would be expected.

7.2.10 Water Resources

Consequences to water resources under the No Action Alternative would be no different than those already existing in the affected environment.

7.2.11 Air Resources

In the No Action Alternative, the Miscellaneous Site 22 Tract would continue to be used as a LANL buffer area. As currently is the case, there would be no emissions of criteria pollutants, hazardous or other chemical pollutants, or radioactive air pollutants from activities at the Miscellaneous Site 22 Tract. Accordingly, air pollutants at this tract would come from external activities and sources.

The dominant source of criteria pollutants would continue to be traffic along Trinity Drive. Analyses show that ambient air quality would remain within standards established by EPA and the State of New Mexico for criteria pollutants (DOE 1999c, Chapter 5).

For hazardous and other chemical pollutants, analyses performed for the LANL SWEIS estimate that concentrations of chemical air pollutants would not exceed health-based standards for any point beyond the LANL boundary except for the Los Alamos Medical Center. Concentrations at the Miscellaneous Site 22 Tract also would comply with health-based standards.

Finally, analyses for doses from radioactive air pollutants indicate that air concentrations at the Miscellaneous Site 22 Tract would deliver a dose of approximately 2.5 millirem per year to people residing there

year-round, or about 25 percent of the EPA standard (DOE 1999c, Chapter 5). There would be no emissions of radioactive air pollutants from activities at the tract itself.

7.2.11.1 Global Climate Change

There would be no change from today's type or level of activities at the Miscellaneous Site 22 Tract for the No Action Alternative. Because there are no heated facilities and the tract has no vehicle traffic, there would be no emissions of carbon dioxide or other greenhouse gases from the Miscellaneous Site 22 Tract.

7.2.12 Human Health

There would be no identifiable human health consequences of the No Action Alternative for the Miscellaneous Site 22 Tract. No changes in cancer risk should be expected for implementing this alternative.

7.2.12.1 Chemical Accidents

Accident assessment would be the same as described in the Affected Environment section of this chapter. For all postulated accidents, chemical concentrations in the air plume released by potential chemical accidents would be below both ERPG-3 (life-threatening) and ERPG-2 (serious health effects) by the time air plume reached Site 22, even under adverse weather dispersion conditions. Accordingly, chemical accidents would have no estimated public consequences at the tract.

7.2.12.2 Radiological Accidents

Accident assessment would be the same as described in the Affected Environment section of this chapter. MEI doses would be greater than 500 millirem for 3 of 13 scenarios. The estimated tract collective dose and estimated excess LCF would both be zero.

7.2.12.3 Natural Event Accidents

Accident assessment would be the same as described in the Affected Environment section of this chapter. Neither the wildfire nor any of the earthquakes would have chemical consequences, even under adverse weather dispersion conditions. The MEI dose resulting from the postulated wildfire would be less than 0.1 rem; the maximum dose from the most severe earthquake would be nearly 100 rem. Because there would be no workers or residents at the tract, estimated tract collective dose and estimated excess LCF would both be zero for all five natural event accident scenarios.

7.2.13 Environmental Justice

For environmental justice impacts to occur, there must be high and adverse human health or environmental impacts that disproportionately affect minority or low-income populations. Human health analyses estimate that air emissions and hazardous chemical and radiological releases from normal LANL operations that would continue under the No Action Alternative would be expected to be within regulatory limits and that no excess LCFs would likely result. The human health analyses also indicate that radiological releases from accidents at LANL would not result in disproportionate adverse human health or environmental impacts. Therefore, such accidents would not have disproportionately high and adverse impacts on minority or low-income populations.

The analyses also indicate that socioeconomic changes resulting from implementing the No Action Alternative would not lead to environmental justice impacts. Employment and expenditures would remain unchanged from the baseline.

7.3 Proposed Action Alternative

There are no DOE facilities or activities on this tract that would have to be relocated or otherwise affected by the proposed transfer

of this tract except for the need to relocate the tract's environmental media monitoring station onto LANL lands. Therefore, there would be no direct consequences of the transfer of ownership of the tract other than those associated with potential loss of Federal protection of any cultural and ecological resources that may be present and the negligible consequences of relocating the air monitoring station (see Sections 7.3.7 and 7.3.8, respectively).

7.3.1 Land Use

Indirect consequences would be anticipated from the subsequent uses of the tract contemplated by the receiving party or parties. The contemplated uses and the associated consequences are discussed in the following sections.

7.3.1.1 Description of Contemplated Uses

Land use proposed for the Miscellaneous Site 22 Tract would likely result in its use as part of a commercial storage business. Activities at the tract would primarily involve vehicle parking and container storage. The site would not be developed further in the near-term except perhaps by being paved, and the general public would have unrestricted access.

7.3.1.2 Environmental Consequences of the Contemplated Uses

The scenario as currently defined would result in a slight change from existing land use. The site is currently a LANL buffer area that receives unauthorized use for vehicle parking. Under the Proposed Action Alternative, the Miscellaneous Site 22 Tract would change to a sanctioned parking area. The environmental consequences to land use would remain essentially the same as for the No Action Alternative.

7.3.1.3 Environmental Restoration

No additional restoration actions would be required under the Proposed Action Alternative because restoration activities must occur before the tract would be considered suitable for conveyance or transfer.

7.3.2 Transportation

7.3.2.1 Environmental Consequences of the Contemplated Uses

The contemplated uses discussed in Section 7.3.1 would result in transportation system impacts essentially the same as for the No Action Alternative. Therefore, it is expected that the future operational performance of Trinity Drive would remain similar to that of the current performance.

7.3.3 Infrastructure

7.3.3.1 Environmental Consequences of the Contemplated Uses

Conveyance or transfer of this tract could result in closure and possible removal of the air monitoring station. However, if the monitoring station were moved to another location, the electric power usage would be approximately the same as it currently is, regardless of location. Otherwise, no changes to the infrastructure at the site are anticipated, and no new impacts would result.

7.3.4 Noise

7.3.4.1 Environmental Consequences of the Contemplated Uses

If developed commercially, the Miscellaneous Site 22 Tract would continue to be used for vehicle parking and storage. Activity levels would remain as today and, accordingly, so would noise levels. Noise from East Jemez Road across Los Alamos Canyon would continue to be the primary

intrusion on background noise levels. It is estimated that noise levels would range from 50 to 60 dB.

7.3.5 Visual Resources

7.3.5.1 Environmental Consequences of the Contemplated Uses

No substantial impacts to the visual resources of the tract would be expected under the Proposed Action Alternative. The contemplated land use is commercial, similar to the existing use. The tract is classified as Scenic Class IV, which indicates low public value for the visual resources. The planned use would maintain or improve current visual resources.

7.3.6 Socioeconomics

7.3.6.1 Environmental Consequences of the Contemplated Uses

Little development would be expected on this tract of land due to its size and location. There would be no impact to the regional economy.

7.3.7 Ecological Resources

Direct impacts of the conveyance or transfer itself would be limited to the changes in responsibility for resource protection. Environmental review and protection processes for future activities would not be as rigorous as those which govern DOE activities.

7.3.7.1 Environmental Consequences of the Contemplated Uses

Vegetation on the Miscellaneous Site 22 Tract consists of primarily grasses, wildflowers, shrubs, and bare ground in a highly developed area. Commercial development of the area would result in the loss of approximately 0.5 acres (0.2 hectares) of very poor habitat. Approximately 0.26 acres (0.11) of area included in the Mexican spotted owl Los Alamos Canyon AEI core habitat would be affected (PC 1999d).

Under most commercial development scenarios the impacts would be similar. Transfer of land out of DOE control would result in a less rigorous environmental review and protection process for future activities.

7.3.8 Cultural Resources

National Register of Historic Places (NRHP)-eligible or potentially eligible resources and TCPs have not been identified, nor are they expected to be present in the Miscellaneous Site 22 Tract. If resources are present in the Miscellaneous Site 22 Tract, direct impacts of the conveyance and transfer itself would result from the transfer of these resources out of the responsibility and protection of the DOE.

7.3.8.1 Environmental Consequences of the Contemplated Uses

No cultural resources have been identified nor are expected to be present in the Miscellaneous Site 22 Tract. Therefore, there would be no impacts associated with the use of this tract.

7.3.9 Geology and Soils

7.3.9.1 Environmental Consequences of the Contemplated Uses

Land use proposed for this tract would likely result in its use as part of a commercial storage business. Because this tract is already developed, no additional utilities, roadwork, or other soil disturbing actions are anticipated.

7.3.10 Water Resources

7.3.10.1 Environmental Consequences of the Contemplated Uses

The contemplated land use for the Miscellaneous Site 22 Tract includes paving for vehicle parking and container storage. No other alternative has been contemplated.

Conveyance or transfer of this tract would not directly affect surface water or groundwater quantity or quality. However, surface water quantity and quality outside of the tract boundary in Los Alamos Canyon may be indirectly affected by a slight increase in storm water runoff from the tract that may wash contaminants from paved areas into the canyon.

7.3.11 Air Resources

7.3.11.1 Environmental Consequences of the Contemplated Uses

Contemplated use for the Miscellaneous Site 22 Tract would be little changed from current unofficial use. Air quality at the tract would remain unchanged, with concentrations of criteria pollutants, hazardous and other chemical pollutants, and radioactive air pollutants all within Federal and State standards.

7.3.11.2 Global Climate Change

Contemplated land use for the Miscellaneous Site 22 Tract would be little changed from its unofficial current use. Because there would be no heated facilities and little possible increase in vehicle use, essentially there would be no emissions of carbon dioxide or other greenhouse gases.

7.3.12 Human Health

7.3.12.1 Environmental Consequences of the Contemplated Uses

The consequences for the Proposed Action Alternative implementation would be the same as for the No Action Alternative. The public could be in closer proximity to LANL but not closer than the offsite MEI with respect to the LANL operations producing the radioactive air emissions. Therefore, nonradiological and radiological doses would be the same as for the No Action Alternative.

7.3.12.2 Chemical Accidents

Accident assessment would be the same as in the No Action Alternative. For all postulated accidents, chemical concentrations in the air plume released by potential chemical accidents would be below both ERPG-3 (life-threatening) and ERPG-2 (serious health effects) by the time air plume reached Site 22, even under adverse weather dispersion conditions. Accordingly, chemical accidents would have no estimated public consequences at the tract.

7.3.12.3 Radiological Accidents

The Miscellaneous Site 22 Tract has only one planned use subsequent to land transfer, namely, continued use as a commercial storage facility. The MEI dose assessment would be the same as in the No Action Alternative; MEI doses would be greater than 500 millirem for 3 of 13 scenarios. The estimated tract collective dose and estimated excess LCF would also remain as in the No Action Alternative (that is, both would remain zero).

7.3.12.4 Natural Event Accidents

Accident assessment would be the same as in the No Action Alternative. Neither the wildfire nor any of the earthquakes would have chemical consequences, even under

adverse weather dispersion conditions. The MEI dose resulting from the postulated wildfire would be less than 0.1 rem; the maximum dose from the most severe earthquake would be nearly 100 rem. However, because there is no planned development of this tract, and hence there would be no workers or residents, the estimated tract collective dose and estimated excess LCF would both be zero for all five natural event accident scenarios.

7.3.13 Environmental Justice

For environmental justice impacts to occur, there must be high and adverse human health or environmental impacts that disproportionately affect minority or low-income populations. The human health analyses for the contemplated land use estimate that air emissions and hazardous chemical and radiological releases from LANL operations would be expected to be within regulatory limits and that no excess LCFs would likely result. The human health analyses also indicate that radiological releases from accidents would not result in disproportionate adverse human health or environmental impacts. Therefore, such accidents would not have disproportionately high and adverse impacts on minority or low-income populations with regard to implementing the contemplated land uses on the tract.

The analyses also indicate that socioeconomic changes resulting from implementing either of the proposed alternatives would not lead to environmental justice impacts. Under the Proposed Action Alternative, very modest economic benefits could arise from site improvement and use. Any impacts would be positive and would not disproportionately affect any single group.

7.3.14 Irreversible and Irretrievable Commitment of Resources

This section describes the major irreversible and irretrievable commitments of resources that can be identified at the level of analysis conducted for this CT EIS. A commitment of resources is irreversible when its primary or secondary impacts limit the future options for a resource. An irretrievable commitment refers to the use or consumption of a resource that is neither renewable nor recoverable for use by future generations.

Because there would be no change in the use of this land tract, neither the actual conveyance or transfer nor the future use would cause any irreversible or irretrievable commitments of resources.

7.3.15 Unavoidable Adverse Environmental Impacts

Because there would be no change in the use of this land tract, neither the actual conveyance or transfer nor the future use would cause any adverse environmental impacts.

7.3.16 Relationship Between Local Short-Term Use of the Environment and the Maintenance of Long-Term Productivity

Because there would be no change in the use of this land tract, neither the actual conveyance or transfer nor the future use would cause any specific impacts on short-term uses of the environment. Similarly, because this tract is already developed, there would be no impact to the long-term ecological productivity of the area.